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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,022	02/13/2002	George Anthony Dunn	SJO920010193US1 (0105-000)	7517
7590	08/04/2004		EXAMINER DAVIDSON, DAN	
ATTN: John J. Oskorep One Magnificent Mile Center Suite 1400 980 N. Michigan Avenue Chicago, IL 60611			ART UNIT 2651	
PAPER NUMBER				
DATE MAILED: 08/04/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/075,022	Applicant(s) DUNN ET AL.	
	Examiner Dan I Davidson	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22 and 27-32 is/are allowed.
- 6) ☒ Claim(s) 23 is/are rejected.
- 7) ☒ Claim(s) 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02132002</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The information disclosure statement filed February 13, 2002 has been received and has been considered and made of record.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 23 is rejected under 35 U.S.C. 102(e) as being anticipated by Satoh (US 6,469,853 B1).

Satoh discloses a recordable disk (Fig. 1), comprising: a first plurality of S_1 servo sample wedges which are equally spaced apart circumferentially around the disk (Fig. 1, 27); each wedge of the first plurality of S_1 servo sample wedges contiguously radially extending from an outermost position on the disk to an innermost position on the disk (Fig. 1, 27); a second plurality of S_2 servo sample wedges which are equally spaced apart circumferentially around the disk and interleaved with the first plurality of S_1 servo sample wedges (Fig. 1, 6-1); and each wedge of the second plurality of S_2 servo sample wedges contiguously radially extending from the outermost position on the disk to a first intermediate

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position on the disk in between the outermost and innermost positions (Fig. 1, 6-1, Data Zone 1).

Allowable Subject Matter

4. Claims 1-22 and 27-32 are allowed over the prior art of record.

Re claims 1, 9, and 16; the prior art of record, and in particular Ottesen (US 4,016,603 A), fails to teach or suggest a second plurality of servo sample wedges in a second servo zone which is radially adjacent the first servo zone, where $S_2 = S_1 / N_1$ and S_1 , S_2 , and N_1 are integers greater than or equal to 2; and the S_2 servo sample wedges of the second plurality being in radial alignment with every N_1 th wedge of the S_1 servo sample wedges of the first plurality.

Re claim 8; the prior art of record, and in particular Ottesen (US 4,016,603 A), fails to teach or suggest a second plurality of servo sample wedges in a second servo zone which is radially adjacent the first servo zone, where $S_2 = S_1 / N_1$ and S_1 , S_2 , and N_1 are integers greater than or equal to 2; the S_2 servo sample wedges of the second plurality being equally spaced apart circumferentially around the disk by a second angle $\theta_2 = \theta_1 * N_1$; and the S_2 servo sample wedges of the second plurality being in radial alignment with every N_1 th wedge of the S_1 servo sample wedges of the first plurality.

Re claim 27; the prior art of record, and in particular Ottesen (US 4,016,603 A), fails to teach or suggest performing a track following operation based on detecting $S_2 = S_1 / N_1$ servo samples per disk revolution in the second servo zone, where S_1 , S_2 , and N_1 are integers greater than or equal to 2.

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5. Claims 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claim 24; the prior art of record, and in particular Satoh (US 6,469,853 B1), fails to teach or suggest that $S_1 = S_2$.

Re claim 25; the prior art of record, and in particular Satoh (US 6,469,853 B1), fails to teach or suggest each wedge of the third plurality of S_3 servo sample wedges contiguously radially extending from the outermost position on the disk to a second intermediate position on the disk in between the outermost position and the first intermediate position.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hull et al (US 6,262,857 B1) teach a disk drive having a plurality of servo zones, an advantage of which is enabling the allocation of less disk area to the servo-data regions.

Genheimer (US 5,784,219 A) teaches having large and small servo fields on a storage medium.

Yamada et al (US 5,010,430 A) teach having two servo zones (see Fig. 14), wherein servo sectors of the two zones are not radially aligned.

-----Dennison et al (US 4,048,660 A) teach having two servo zones (see Fig. 1), wherein servo sectors of the two zones are not radially aligned, and wherein there are more servo sectors at the outermost tracks.

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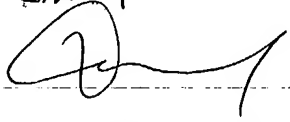
Ottesen (US 4,016,603 A) teaches having multiple servo zones, wherein servo sectors of the different zones are not radially aligned.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan I Davidson whose telephone number is (703) 308-8535. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran, can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

~~DED~~
Dan I Davidson
July 28, 2004

Primary Examiner
Kidlong

for SPE S. Tran

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